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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/562,380
Filing Date: December 23, 2005
Appellant(s): GSCHIERMEISTER ET AL.

Thomas M. Coester (Registration No. 39,637)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed November 10, 2010 appealing from the Office action mailed July 7, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims pending: 1-28.

Claims rejected: 1-28.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

5,991,536	Brodsky et al.	11-1999
6,029,175	Chow et al.	2-2000
6,044,205	Reed et al.	3-2000
2005/0015441 A1	Attwood et al.	1-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

- Claims 1, 4-5, 7, 9, 14-15, 18-19, 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175).
- Claims 6, 8, 13, 20, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175), as applied to claims 1 and 14 above, and further in view of Attwood et al. (hereinafter Attwood, previously cited) (U.S. Publication No. 2005/0015441 A1).
- Claims 2-3, 10-12, 16-17, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175), as applied to claims 1 and 14 above, and further in view of Reed et al. (hereinafter Reed, previously cited) (U.S. Patent 6,044,205).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-5, 7, 9, 14-15, 18-19, 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175).

As to claim 1, Brodsky teaches the invention substantially as claimed including a computer-implemented method comprising:

receiving a notification regarding a data object (*i.e. “observed object”*)

indicating a change to the data object (*i.e. “Whenever a change is made to a specified observed object in the object hierarchy, the notification manager is informed”, col. 4, lines 49-51*);

notifying an application (*i.e. “observer object”*) about the change if the change is relevant for that application (*i.e. “notifies the associated observer objects... with information concerning the change”, col. 4, lines 54-57*); and

transmitting the relevant changed data (*i.e. “information concerning the change”*) to the application (*i.e. “The observer objects monitoring the observed object are notified in an unspecified order with information concerning the change”, col. 4, lines 55-57 – an observed object represents the application - and the information concerning the change must contain the changed data since-*

“The notification manager ... invokes a function of the observed object provided by the BaseNotifier class to notify all observer objects registered with the observed object that the attribute A now has the name of “B””, col. 6, lines 36-41).

Brodsky does not explicitly disclose upon each receipt of the notification, requesting changed data from the data object; and checking, by an agent executed by a computer system, a plurality of entries representative of a plurality of applications maintained by the agent to determine whether the changed data is relevant for each application in the plurality of applications.

However Chow teaches upon each receipt of the notification (*i.e. “step 451”, Figure 38, “entry point 451 entered when a change notification is received by the Revision Manager from a server such as the file server 313 in FIG. 32, col. 29, lines 21-24*), requesting changed data from the data object (*i.e. “step 459”, Figure 38, “if a search specification is defined for the object, then the object is obtained from the network in step 459 by following the object’s search specification. For example, the object identification code itself may specify a primary or unique source for the object, and in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, col. 29, lines 50-57*); and

checking (*i.e. checks the list of clients*), by an agent (*i.e. "Revision Manager"*) executed by a computer system, a plurality of entries (*i.e. client item in object's interested client list*), representative of a plurality of applications maintained by the agent (*i.e. "Each item in the client list represents a client browser registering interest in the associated WWW document within the cached document file. The item is a data structure which contains the client's IP address, port number, updating interval, last time of update and a needs-to-be-updated flag"*, col. 20, lines 1-6, "The directory of clients 390 includes a list of the clients that are being serviced by the Revision Manager 301, col. 26, lines 27-29), to determine whether the changed data is relevant for each application (*i.e. "If the client has a significant change detection method for the object, then execution continues from step 493 to step 494 where the processor of the Revision Manager applies the method to the change in the object to determine whether the change is significant to the client"*, col. 31, lines 45-49) in the plurality of applications (*i.e. "In step 499, the processor of the Revision Manager checks whether the pointer is at the end of the list of clients interested in the object, and if so, the processor is finished processing the change notification. Otherwise, execution branches from step 499 to step 500, where the pointer is advanced to the next client in the object's interested client list. From step 500, execution loops back to step 492. In this fashion, all interested clients are notified of significant changes in the object"*, col. 31, lines 63-67 and col. 32, lines 1-2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which operates as an intermediary between a client, such as a browser executed at a user's terminal, and a local or remote network server, to automatically retrieve changed documents previously accessed from network and inter-network servers (**col. 3, lines 60-67 and col. 4, line 1 of Chow**).

As to claim 4, Brodsky teaches registering entries of sub-objects (*i.e. subordinate observed objects in object hierarchy- “The object hierarchy 114 includes the observed objects 112”, col. 3, line 31, - subordinate observed objects registered with notification manager since the “notification manager maintains a list of observed objects, col. 4, lines 44-45*), a sub-object being a set of data which is changed in dependence on a change of a key data object (*i.e. change to observed object would be cascaded to subordinate observed objects in the object hierarchy since “The object hierarchy 114 includes the observed objects 112, and when a change is made to an observed object 112, generally by the user, this change is reflected in the object hierarchy 114”, col. 3, lines 31-34*).

As to claim 5, Brodsky teaches transmitting the relevant changed sub-object data (*i.e. “information concerning the change”*) to the application after notifying the application (*i.e. “The observer objects monitoring the observed object are notified*

in an unspecified order with information concerning the change”, col. 4, lines 55-57 – an observed object represents the application - and the information concerning the change must contain the changed data since- “The notification manager ... invokes a function of the observed object provided by the BaseNotifier class to notify all observer objects registered with the observed object that the attribute A now has the name of “B””, col. 6, lines 36-41).

As to claim 7, Brodsky teaches filtering out data objects whose changes are not to be communicated to an application (*i.e. “The notification manager... accesses certain status information contained therein, determines which observed objects have been modified, and then notifies the associated observer objects”, col. 4, lines 51-54 – notification manager filters out observed objects that do not have associated observed objects since the notification manager only sends notifications to registered observer objects listed with the observed object– “the observer objects register with the notification manager, so that they are notified when changes or modifications are made to the observed objects”, col. 4, lines 28-30), “where each observed object may have multiple observer objects”, col. 4, lines 45-46*), prior to transmitting the relevant changed data to the application (*i.e. “...and then notifies the associated observer objects”, col. 4, lines 54-55, “The observer objects monitoring the observed object are notified in an unspecified order with information concerning the change”, col. 4, lines 55-57*).

As to claim 9, Brodsky teaches registering the entries of data objects (*i.e. observed objects*) and applications (*i.e. “observer objects”*) in a customization structure of an agent (*i.e. “all knowledge of how to notify the observer objects of changes in the observed objects in the object hierarchy is encapsulated in the notification manager”, col. 4, lines 20-23, – notification manager acts a agent for the observed and observer objects – since “The notification manager acts as an intermediary between the observer object and the object hierarchy”, col. 4, lines 26-27, “the object hierarchy includes the observed objects”, col. 3, lines 31-32*).

As to claim 14, this claim is rejected for the same reasons as claim 1 since claim 14 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Brodsky teaches the agent (*i.e. “notification manager”, “all knowledge of how to notify the observer objects of changes in the observed objects in the object hierarchy is encapsulated in the notification manager”, col. 4, lines 20-23, – notification manager acts a agent for the observed and observer objects – since “The notification manager acts as an intermediary between the observer object and the object hierarchy”, col. 4, lines 26-27, “the object hierarchy includes the observed objects”, col. 3, lines 31-32*) to register an entry representative of a data object in a first data structure (*i.e. “notification manager maintains a list of observed objects”- list of observed objects is a first data structure, col. 4, lines 44-45*), to register an entry representative of an application (*i.e. “The observer objects register with the notification manager, so that they are notified when changes or*

modifications are made to the observed objects in the object hierarchy”, col. 4, lines 28-31) in a second data structure (i.e. “notification manager maintains a list of observer objects”- list of observer objects is a second data structure, col. 4, lines 44-45).

Brodsky does not explicitly disclose the application entry specifying the data object whose changes are relevant for the application.

However Chow teaches the application entry (*i.e. client entry in "directory of clients"*) specifying the data object whose changes are relevant for the application (*i.e. “The directory of clients 390 includes a list of the clients that are being serviced by the Revision Manager 301. The data structures further include lists 391 of objects of interest to the clients in the directory of clients 390. Also associated with the clients in the directory 390 are the client's significant change detection methods 392 for the objects of interest. These methods consist of procedures or parameters for predetermined procedures that can compute changes in altered objects and determine which changes are material to the client”, col. 26, lines 27-37*). The motivation for modifying Brodsky with the teachings of Chow is the same as provided in the rejection of claim 1 above.

As to claim 15, Brodsky teaches wherein the agent is further to:

present a first input interface (*i.e. "Object Composition View 204, Figure 2", "views in a graphical user interface (GUI) displayed on a monitor of the computer, col. 3, lines 64-65*) to allow for registering (*i.e. adding*) the entries representative of data objects (*i.e. "observed objects", "wherein these views are used to interact with the user in the construction of an object hierarchy or its component parts", col. 3, lines 66-67 and col. 4, lines 1-2, -an observed object created in the object hierarchy using a view is added to the list maintained by the notification manager*);

present a second input interface (*i.e. "a user interface object, such as a view or window displayed on a monitor attached to the computer", col. 3, lines 61-63*) to allow for registering the entries representative of applications (*i.e. "observer object", "A typical observer object is a user interface object", col. 3, lines 60-61, which register with the notification manager", col. 4, lines 28-29*).

As to claims 18-19, these claims are rejected for the same reasons as claims 4-5 since claims 18-19 recite the same or equivalent invention, see the rejections to claims 4-5 above.

As to claim 21, this claim is rejected for the same reasons as claim 7 since claim 21 recites the same or equivalent invention, see the rejection to claim 7 above.

As to claim 23, this claim is rejected for the same reasons as claim 9 since claim 23 recites the same or equivalent invention, see the rejection to claim 9 above.

As to claim 28, this claim is rejected for the same reasons as claims 1 and 14, since claim 28 recites the same or equivalent invention, see the rejection to claims 1 and 14 above.

Claims 6, 8, 13, 20, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175), as applied to claims 1 and 14 above, and further in view of Attwood et al. (hereinafter Attwood, previously cited) (U.S. Publication No. 2005/0015441 A1).

As to claim 6, Brodsky as modified by Chow does not explicitly disclose wherein specifying data objects whose changes are relevant for the respective application comprises: receiving a list of fields whose changes are relevant for the respective application.

However Attwood teaches wherein specifying data objects whose changes are relevant for the respective application comprises: receiving a list of fields (*i.e. “set of objectIDs”, paragraph [0075]*) whose changes are relevant for the respective

application (*an application will “register interest in specific objects”, paragraph [0068], lines 1-3*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the notification manager of Brodsky as modified by Chow with the teachings of notification system from Attwood because this feature would have further provided a mechanism which enables software applications to register interest in the actions performed on data objects, to notify other software applications of actions performed, and to receive notification events of the actions performed by other software applications which have a registered interest in common data objects (*paragraph [0003], lines 8-13 of Attwood*).

As to claim 8, Brodsky as modified by Chow does not explicitly disclose wherein registering entries representative of applications includes: specifying which changes of a data object are relevant for the application.

However Attwood teaches wherein registering entries representative of applications includes: specifying which changes (i.e. “set of actions”, paragraph [0076]) of a data object are relevant for the application (*an application will “register interest in specific objects and the actions performed”, paragraph [0068], lines 1-3*). The motivation for modifying Brodsky with the teachings of Chow and Attwood is the same as provided in the rejection of claim 6 above.

As to claim 13, Brodsky as modified by Chow does not explicitly disclose wherein a data object represents one of location, location-product, and transportation lane in context of a business application.

However Attwood teaches wherein a data object represents one of location (*i.e.* “**Destination**” – *is a data type for a data object defining – “the address or location of a machine, Table 1*), location-product, and transportation lane in context of a business application (*i.e.* “**medical application**”, “**a set of related medical applications distributed across a hospital network may register interest in changes to all patients or a specific set of patients so that up to date patient information is always available to and used by all software applications of the hospital**”, **paragraph [0005], lines 4-9**). The motivation for modifying Brodsky with the teachings of Chow and Attwood is the same as provided in the rejection of claim 6 above.

As to claim 20, this claim is rejected for the same reasons as claim 6 since claim 20 recites the same or equivalent invention, see the rejection to claim 6 above.

As to claim 22, this claim is rejected for the same reasons as claim 8 since claim 22 recites the same or equivalent invention, see the rejection to claim 8 above.

As to claim 27, this claim is rejected for the same reasons as claim 13 since claim 27 recites the same or equivalent invention, see the rejection to claim 13 above.

Claims 2-3, 10-12, 16-17, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brodsky et al. (hereinafter Brodsky, previously cited) (U.S. Patent 5,991,536) in view of Chow et al. (hereinafter Chow) (U.S. Patent 6,029,175), as applied to claims 1 and 14 above, and further in view of Reed et al. (hereinafter Reed, previously cited) (U.S. Patent 6,044,205).

As to claim 2, Brodsky as modified by Chow does not explicitly disclose expecting a confirmation of changes from an application after transmitting the changed data to the application.

However Reed teaches expecting a confirmation of changes (*i.e. “receipt acknowledgement message return”, “a receipt method assigned by a provider is a receipt acknowledgment message return”, col. 37, lines 32-33*) from an application (*i.e. “consumer program” 22, Figure 1*) after transmitting the changed data (*i.e. “communications object update”*) to the application (*i.e. “As shown in FIG. 1, this is a message 33 returned by consumer program 22 to provider program 12 via a communications network 3 available to both provider and consumer. This message acknowledges the consumer's receipt of the communications object or object update.”, col. 37, lines 34-36*).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified observer objects of Brodsky as modified by Chow with the teachings of communications object from Reed because this feature would have further provided a mechanism for updating the transferred information in the consumer computer when the information in provider computer has changed (**col. 6, lines 24-26 of Reed**), and the updated information can be automatically received, processed, stored, and indexed by the consumer program 22 (**col. 28, lines 59-61 of Reed**).

As to claim 3, Brodsky as modified by Chow does not explicitly disclose triggering a mechanism if an expected conformation is not received.

However Reed teaches triggering a mechanism (*i.e. "taking necessary actions"*) if an expected conformation (*i.e. "acknowledgment"*) is not received ("*if the acknowledgment is not received, the method can take other necessary actions, such as retransmitting the response or notifying the consumer via the news report or other notification methods*", **col. 41, lines 64-67**). The motivation for modifying Brodsky with the teachings of Chow and Reed is the same as provided in the rejection of claim 2 above.

As to claim 10, Brodsky as modified by Attwood does not explicitly disclose wherein an entry for an object comprises: an ID representative of the data object; an ID

representative of the key of the data object; a flag representative of activity; an ID representative of the key structure of the data object; and an ID of the wrapper class.

However Reed teaches wherein an entry for an object (*i.e. “Communications Object 110”, Figure 3*), comprises: an ID representative of the data object (*i.e. “Name”, col. 16, lines 62-64, “used as a label for identifying the element”, col. 15, lines 57-58*); an ID representative of the key of the data object (*i.e. “SystemID”, col. 16, lines 62-64, “unique system ID value assigned to each unique communications object...equivalent of an automatically-generated unique key field ID”, col. 18, lines 44-48*); a flag representative of activity (*i.e. “New Flag”, col. 16, lines 62-65, “is set each time an element is changed”, col. 15, lines 60-61*); an ID representative of the key structure of the data object (*i.e. “Description” – description of object normally identifies type and structure, col. 16, lines 62-64*) and an ID of the wrapper class (*i.e. “class attribute”, “class communication object belongs to”, col. 17, line 2*). The motivation for modifying Brodsky with the teachings of Chow and Reed is the same as provided in the rejection of claim 2 above.

As to claim 11, Brodsky as modified by Attwood does not explicitly disclose wherein an entry for an application comprises: an ID representative of the application; a flag representative of activity; an ID representative of the expected structure of notification.

However Reed teaches wherein an entry for an application (*i.e. “Recipient 120”, Figure 3*) comprises: an ID representative of the application (*i.e. “System ID”, “used to uniquely identify recipients”, col. 17, lines 20-22*); a flag representative of activity (“*New Flag*” -attribute shown in Figure 3, “*is set each time an element is changed*”, *col. 15, lines 60-61*); an ID representative of the expected structure of notification (*i.e. “AttachmentType” -attribute shown in Figure 3, “the type of encoding that should be used”, col. 17, lines 25-26*). The motivation for modifying Brodsky with the teachings of Chow and Reed is the same as provided in the rejection of claim 2 above.

As to claim 12, Brodsky as modified by Attwood does not explicitly disclose wherein an entry for a sub-object comprises: an ID representative of the sub-object; an ID representative of the key data object; an ID representative of the structure of the data object; an ID representative of the object key object.

However Reed teaches wherein an entry for a sub-object (*i.e. “Element 142”, Figure 3*) comprises: an ID representative of the sub-object (*i.e. “Name...used as a label for identifying the element”, col. 15, lines 57-58*); an ID representative of the key data object (*i.e. “SystemID ... unique identification number”, col. 15, lines 53-55*); an ID representative of the structure of the data object (*i.e. “Description” – description of object normally identifies type and structure, col. 15, lines 53-54*); an ID representative of the object key object (*i.e. “SystemID” - of Communications*

Object element is assigned to – “element 142... must be assigned to an object 110”, col. 16, lines 58-60 and 62-64, “since each instance of a communications object system ID 110 or any or any component class system ID is unique within the provider's database, the combination of these system IDs creates a canonical naming system capable of uniquely identifying every communications object instance or object component class instance throughout the communications system”, col. 19, lines 5-11). The motivation for modifying Brodsky with the teachings of Chow and Reed is the same as provided in the rejection of claim 2 above.

As to claims 16-17, these claims are rejected for the same reasons as claims 2-3 since claims 16-17 recite the same or equivalent invention, see the rejections to claims 2-3 above.

As to claims 24-26, these claims are rejected for the same reasons as claims 10-12 since claims 24-26 recite the same or equivalent invention, see the rejections to claims 10-12 above.

(10) Response to Argument

Appellants argue in substance that:

(1) **Independent claims 1, 14, and 28 and Dependent Claims 2-6, 8-12, 16-20, and 22-26 are not obvious at least because Brodsky and Chow fail to teach requesting changed data from the data object** (page 6, lines 18-20).

(2) **However, this section of Chow does not disclose that the Revision Manager requests or obtains changed data from the object.** Rather, Chow discloses that the entire object is obtained from the network. Furthermore, the clients in Chow issue a GET command to the Revision Manager to access the object which causes the clients to reload the entire object. See Chow, column 6 lines 7-15. **Therefore, this section of Chow does not teach requesting or getting changed data from the data object** (page 7, lines 8-13).

(3) **However, this section of Chow does not teach requesting or obtaining changed data from the object.** Rather, Chow discloses that the entire object is obtained and then the change in the object is determined and evaluated to detect any significant change. If the change is significant to a client, the Revision Manager notifies the client which causes the client to reload the entire object. See Chow, column 32 lines 19-58. **Therefore, this section of Chow does not teach requesting or getting changed data from the data object** (page 7, lines 28-34).

(4) **The Examiner asserts that Chow represents requesting changed data from the data object because the object obtained by the Revision Manager**

contains the changed data. See Advisory Action mailed September 8, 2010, pages 2-3. **However, obtaining an object that contains changed data does not necessarily infer or imply that changed data was requested from the data object.** Rather, as disclosed in Chow, when the Revision Manager receives a change notification, the Revision Manager obtains the entire object from the network without specifically requesting the changed data from the object. See Chow, column 29 lines 20-59. It is after the object is obtained that the Revision Manager determines the change in the object by comparing the new version of the object with the existing version in the cache. See Chow, column 30 lines 35-57. Similarly, when a client receives a change notification, the client reloads the entire object without specifically requesting the changed data from the object. See Chow, column 32, lines 41- 58. The client then identifies the changes in the object by comparing the new version of the object with the old version in the storage. Id. **Therefore, the Examiner's assertion is not supported by Chow** (page 7, lines 36-38 and page 8, lines 1-11).

(5) **However, the Examiner has not articulated "a finding that there was some teaching, suggestion, or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings" as required by M.P.E.P. §.** Brodsky discloses that a server maintains the object hierarchy. See Brodsky, column 5 lines 64- 65. The object hierarchy includes the observed objects, and when a change is made to an observed object, this change is reflected in the object hierarchy. Id. at

column 3 lines 31-34. The observer objects can access and interact with the object hierarchy to obtain information about the observed objects. Id. at column 3 lines 36-38, column 4 lines 16-18 and lines 37-39. **Therefore, there is no motivation to modify the notification manager of Brodsky with the teachings of the revision manager of Chow to provide a mechanism which collects at a site the most recent versions of documents because Brodsky provides for this mechanism via its object hierarchy 2143** (page 8, lines 25-34 and page 9, lines 1-2).

(6) **For at least the reasons mentioned above, the Examiner has failed to establish a prima facie case of obviousness because the Examiner has not established that Chow teaches "requesting, by an agent executing in a computer system, changed data from the data object," as recited in claim 1, "to call a second method by the agent to obtain changed data from the data object," as recited in claim 14, and "getting changed data from the data object," as recited in claim 28.** Thus, the Examiner has not established that Brodsky and Chow teach each element of claims 1, 14, and 28. **Furthermore, the Examiner has not articulated a finding that there was some teaching, suggestion, or motivation to modify Brodsky with the teachings of Chow** (page 9, lines 4-11).

(7) Dependent claims 2-6, 8-12, 16-20, and 22-26 depend from one of independent claims 1 and 14 and thus incorporate the respective limitations thereof. **For at least the aforementioned reasons relating to independent claims 1 and 14,**

Brodsky and Chow fail teach each and every element of these dependent claims
(page 9, lines 14-17).

(8) Claims 7 and 21 depend from independent claims 1 and 14, respectively, and thus incorporate the limitations thereof. **For at least the aforementioned reasons regarding claims 1 and 14, Brodsky and Chow fail teach each and every element of claims 7 and 21 (page 9, lines 24-26).**

(9) **Claims 7 and 21 are not obvious because Brodsky and Chow fail to teach filtering out data from the changed data not to be communicated to the application** (page 10, lines 1-3).

(10) **However, the Examiner's interpretation of Brodsky is improper.** The Examiner states that the above sections of Brodsky teach the elements of claims 7 and 21 because the "notification manager filters out observed objects that do not have associated observed [sic] objects since the notification manager only sends notifications to registered observer objects listed with the observed object." See Final Office Action mailed July 7, 2010, page 9. However, it does not follow that because the notification manager only sends notifications to registered observer objects associated with the modified observed objects, the notification manager filters out observed objects that do not have associated observer objects. **By definition, an observed object must have an associated observer object.**

Otherwise, the object would not be an observed object. Therefore, the notification manager does not filter out observed objects that do not have associated observer objects because every one of the observed objects has at least one associated observer object. See Brodsky, column 4 lines 44-47 (Page 10, lines 22-31 and page 11, lines 1-2).

(11) **The cited sections of Brodsky actually set forth that the notification manager determines which observed objects have been changed and sends notifications to the observer objects associated with the modified observed objects with information concerning the changes. See Brodsky, column 4 lines 44-47 and lines 51-57. However, Brodsky does not teach that the notification manager filters out data from the relevant changed data that is not to be communicated to the observer object, prior to transmitting the relevant changed data to the observer object. In Appellants' claims, the changed data refers to "changed data from the data object," as recited in independent claims 1 and 14.**

Brodsky does not mention that the notification manager accesses the data of the observed object, much less that the notification manager filters data from the observed object. Rather, Brodsky discloses that the notification manager interfaces to the object hierarchy and accesses certain status information contained in the object hierarchy. See Brodsky, column 4 lines 51-55. From this status information, the notification manager determines which observed objects have been modified and then notifies the associated observer objects with information concerning the changes. Id. **Thus, the notification**

manager never filters, or even accesses, the data of the modified observed object, but rather only interfaces with the object hierarchy to determine which observed objects have been changed (page 11, lines 4-20).

(12) **Therefore, Brodsky fails to teach the above limitation of claims 7 and 21.** The Examiner does not indicate and the Appellants' cannot discern any part of Chow that cures the aforementioned deficiencies of Brodsky. Thus, the Examiner has not established that Brodsky and Chow teach each element of claims 7 and 21 as required to establish a *prima facie* case of obviousness (page 11, lines 22-27).

(13) **Claim 15 is not obvious because Brodsky and Chow fail to teach the agent generating a second input interface to allow for registering the entry representative of the application** (page 12, lines 11-13).

(14) **However, Brodsky does not teach that the notification manager generates a first input interface and a second input interface, where the first input interface allows for registering an observed object and the second input interface allows for registering an observer object.** Rather, Brodsky discloses a number of different views to allow the user to construct an object hierarchy or its component parts, which may comprise one or more observer objects or a component part of a single observer object. See Brodsky, column 3 line 64-column 4 line 10. **Thus, Brodsky does**

not teach generating a view for registering an observed object and generating a different view for registering an observer object (page 12, lines 29-34 and page 13, lines 1-2).

(15) **Therefore, Brodsky fails to teach the above limitation of claim 15. The Examiner does not indicate and the Appellants' cannot discern any part of Chow that cures the aforementioned deficiencies of Brodsky. Thus, the Examiner has not established that Brodsky and Chow teach each element of claim 15 as required to establish a *prima facie case of obviousness* (page 13, lines 3-6).**

(16) **Claims 6, 8, 13, 20, 22, and 27 depend from one of independent claims 1 and 14 and thus incorporate the limitations thereof. The Examiner does not indicate and the Appellants do not discern any part of Attwood that cures the aforementioned deficiencies of Brodsky and Chow set forth above. For at least the aforementioned reasons regarding independent claims 1 and 14, Brodsky, Chow, and Attwood do not teach or suggest all the limitations of these dependent claims** (page 13, lines 20-25).

(17) **Claims 2, 3, 10-12, 16, 17, and 24-26 depend from one of independent claims 1 and 14 and thus incorporate the limitations thereof. The Examiner does not indicate and the Appellants do not discern my part of Reed that cures the aforementioned deficiencies of Brodsky and Chow. For at least the above reasons**

regarding independent claims 1 and 14, Brodsky, Chow, and Reed do not teach or suggest all the limitations of these dependent claims (page 14, lines 4-8).

Examiner respectfully traverses Appellants' Arguments:

As to argument (1), Brodsky as modified by Chow discloses requesting changed data from the data object, "requesting, by an agent executing in a computer system, changed data from the data object", "to call a second method by the agent to obtain changed data from the data object", and "getting changed data from the data object" as stated above in the 35 U.S.C. 103(a) rejections for claims 1, 14, and 28 and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 13, item 32.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches "step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object", ***col. 29, lines 50-57***, which represents the requesting, by an agent executed by a computer system, and "Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version

in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6**, **paragraph 0029, lines 2-5, Appellants’ specification**. In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants’ specification describes the changes to the data object occurring at the data object level, “FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well”, **page 6**, **paragraph 0031, lines 1-8 of Appellants’ specification**.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick

and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (2), Brodsky as modified by Chow discloses requesting changed data from the data object, as stated above in the response to argument (1), as stated above in the 35 U.S.C. 103(a) rejections for claims 1, 14, and 28, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 13, item 32.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term

"object" is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment", **pages 5-6**, **paragraph 0029, lines 2-5, Appellants' specification.** In addition, the limitation of "requesting changed data from the data object" inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6**, **paragraph 0031, lines 1-8 of Appellants' specification.**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick

and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (3), Brodsky as modified by Chow discloses requesting changed data from the data object, as stated above in the response to arguments (1) and (2), as stated above in the 35 U.S.C. 103(a) rejections for claims 1, 14, and 28, and

as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 13, item 32.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6, paragraph 0029, lines 2-5, Appellants’ specification**. In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the

changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6, paragraph 0031, lines 1-8 of Appellants' specification.**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the

claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (4), Brodsky as modified by Chow discloses requesting changed data from the data object, as stated above in the response to arguments (1), (2), and (3), as stated above in the 35 U.S.C. 103(a) rejections for claims 1, 14, and 28, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 13, item 32.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6, paragraph 0029, lines 2-5, Appellants’ specification.** In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants’ specification describes the changes to the data object occurring at the data object level, “FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in

context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6**, ***paragraph 0031, lines 1-8 of Appellants' specification.***

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (5), in response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (6), Brodsky as modified by Chow discloses requesting changed data from the data object, as stated above in the response to arguments (1), (2), (3), and (4), as stated above in the 35 U.S.C. 103(a) rejections for claims 1, 14, and 28, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 13, item 32.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, *col. 29, lines 50-57*, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, *col. 30, lines 35-57*, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a

logistics application or a supply chain management environment", **pages 5-6**, **paragraph 0029, lines 2-5, Appellants' specification.** In addition, the limitation of "requesting changed data from the data object" inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6**, **paragraph 0031, lines 1-8 of Appellants' specification.**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (7), Brodsky as modified by Chow discloses requesting changed data from the data object, "requesting, by an agent executing in a computer system, changed data from the data object", and "to call a second method by the agent to obtain changed data from the data object", as stated above in the response to arguments (1), (2), (3), (4), (5), and (6), as stated above in the 35 U.S.C. 103(a)

rejections for claims 1 and 14, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 11, item 27.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6, paragraph 0029, lines 2-5, Appellants’ specification**. In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the

changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6, paragraph 0031, lines 1-8 of Appellants' specification.**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the

claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (8), Brodsky as modified by Chow discloses requesting changed data from the data object, “requesting, by an agent executing in a computer system, changed data from the data object”, and “to call a second method by the agent to obtain changed data from the data object”, as stated above in the response to arguments (1), (2), (3), (4), (5), (6), and (7), as stated above in the 35 U.S.C. 103(a) rejections for claims 1 and 14, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 11, item 27.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. …If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6, paragraph 0029, lines 2-5, Appellants’ specification**. In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants’ specification describes the changes to the data object occurring at the data object level, “FIG. 1 illustrates a CNA 100 which is configured to communicate, on the

one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects.

The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6**,

paragraph 0031, lines 1-8 of Appellants' specification.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (9), Brodsky discloses filtering out data from the changed data not to be communicated to the application as stated above in the 35 U.S.C. 103(a) rejections for claims 7 and 21 and as stated in the Final Office action mailed on 7/7/2010 on page 9 item 23 and page 12, item 30.

Support for this limitation was interpreted by the original claim “filtering out data objects whose changes are not to be communicated to an application” and in view of Appellants’ specification, specifically page 8, paragraph 0044, lines 1-6 and page 11, paragraph 0065, lines 5-8, based on Appellants’ appeal page 4, lines 8-10. In view of Appellants’ specification, the terms data and changed data have the same meaning as the terms data object and changed data object since the limitation of “filtering out data from the changed data not to be communicated to the application” is described as

occurring at the data object level, “In case that not all the changes of an object are relevant for each of the registered applications, the agent may maintain a list of fields of the respective data object whose changes are relevant for the respective application.

Then, based on this list, an operation is performed to filter out data objects whose changes are not to be communicated to an application, prior to the operation of transmitting the relevant changed data to the application”, ***page 8, paragraph 0044,***

lines 1-6 of Appellants’ specification, “Before the changes are finally communicated to the applications, an applications method named FILTER_CHANGED_DATA is called.

Here the applications can define special logics to filter out some additional objects and prevent them to be reported”, ***page 11, paragraph 0065, lines 5-8 of Appellants’***

specification. In addition, in view of Appellants’ specification the limitation of a changed data object not to be communicated to the application is interpreted as the changed data object not relevant for the application which is equivalent to the application did not register for the data object.

Brodsky teaches “The notification manager... accesses certain status information contained therein, determines which observed objects have been modified”, ***col. 4, lines 51-53,*** which represents filtering out data objects from the changed data objects, “and then notifies the associated observer objects”, ***col. 4, lines 54-55,*** which represents filtering out data objects from the changed data objects not to be communicated to an application since the notification manager only sends notifications to registered observer objects listed with the observed object, the notification manager

filters out observed objects that do not have associated observer objects since “an observed object 112 is added, deleted, or updated from the object hierarchy”, col. 4, lines 39-40, “the notification manager 110 maintains a list of both observed objects 112 and observer objects 116”, **col. 4, lines 44-46**, the notification manager would need to remove a deleted observed object from its list so that changes would not be communicated to the application after being deleted, “the observer objects register with the notification manager, so that they are notified when changes or modifications are made to the observed objects”, **col. 4, lines 28-30**, and each observed object may have zero to many observer objects “where each observed object may have multiple observer objects”, **col. 4, lines 45-46**. “...then notifies the associated observer objects”, **col. 4, lines 54-55**, “The observer objects monitoring the observed object are notified in an unspecified order with information concerning the change”, **col. 4, lines 55-57**, which represents prior to transmitting the relevant changed data to the application.

As to argument (10), Brodsky discloses filtering out data from the changed data not to be communicated to the application, as stated above in the response to argument (9), as stated above in the 35 U.S.C. 103(a) rejections for claims 7 and 21, and as stated in the Final Office action mailed on 7/7/2010 on page 9 item 23 and page 12, item 30.

Support for this limitation was interpreted by the original claim “filtering out data objects whose changes are not to be communicated to an application” and in view of

Appellants' specification, specifically page 8, paragraph 0044, lines 1-6 and page 11, paragraph 0065, lines 5-8, based on Appellants' appeal page 4, lines 8-10. In view of Appellants' specification, the terms data and changed data have the same meaning as the terms data object and changed data object since the limitation of "filtering out data from the changed data not to be communicated to the application" is described as occurring at the data object level, "In case that not all the changes of an object are relevant for each of the registered applications, the agent may maintain a list of fields of the respective data object whose changes are relevant for the respective application. Then, based on this list, an operation is performed to filter out data objects whose changes are not to be communicated to an application, prior to the operation of transmitting the relevant changed data to the application", ***page 8, paragraph 0044, lines 1-6 of Appellants' specification***, "Before the changes are finally communicated to the applications, an applications method named FILTER_CHANGED_DATA is called. Here the applications can define special logics to filter out some additional objects and prevent them to be reported", ***page 11, paragraph 0065, lines 5-8 of Appellants' specification***. In addition, in view of Appellants' specification the limitation of a changed data object not to be communicated to the application is interpreted as the changed data object not relevant for the application which is equivalent to the application did not register for the data object.

Brodsky teaches "The notification manager... accesses certain status information contained therein, determines which observed objects have been modified",

col. 4, lines 51-53, which represents filtering out data objects from the changed data objects, “and then notifies the associated observer objects”, **col. 4, lines 54-55**, which represents filtering out data objects from the changed data objects not to be communicated to an application since the notification manager only sends notifications to registered observer objects listed with the observed object, the notification manager filters out observed objects that do not have associated observer objects since “an observed object 112 is added, deleted, or updated from the object hierarchy”, col. 4, lines 39-40, “the notification manager 110 maintains a list of both observed objects 112 and observer objects 116”, **col. 4, lines 44-46**, the notification manager would need to remove a deleted observed object from its list so that changes would not be communicated to the application after being deleted, “the observer objects register with the notification manager, so that they are notified when changes or modifications are made to the observed objects”, **col. 4, lines 28-30**, and each observed object may have zero to many observer objects “where each observed object may have multiple observer objects”, **col. 4, lines 45-46**. “...then notifies the associated observer objects”, **col. 4, lines 54-55**, “The observer objects monitoring the observed object are notified in an unspecified order with information concerning the change”, **col. 4, lines 55-57**, which represents prior to transmitting the relevant changed data to the application.

As to argument (11), Brodsky discloses filtering out data from the changed data not to be communicated to the application, as stated above in the response to arguments (9) and (10), as stated above in the 35 U.S.C. 103(a) rejections for claims 7

and 21, and as stated in the Final Office action mailed on 7/7/2010 on page 9 item 23 and page 12, item 30.

Support for this limitation was interpreted by the original claim “filtering out data objects whose changes are not to be communicated to an application” and in view of Appellants’ specification, specifically page 8, paragraph 0044, lines 1-6 and page 11, paragraph 0065, lines 5-8, based on Appellants’ appeal page 4, lines 8-10. In view of Appellants’ specification, the terms data and changed data have the same meaning as the terms data object and changed data object since the limitation of “filtering out data from the changed data not to be communicated to the application” is described as occurring at the data object level, “In case that not all the changes of an object are relevant for each of the registered applications, the agent may maintain a list of fields of the respective data object whose changes are relevant for the respective application. Then, based on this list, an operation is performed to filter out data objects whose changes are not to be communicated to an application, prior to the operation of transmitting the relevant changed data to the application”, ***page 8, paragraph 0044, lines 1-6 of Appellants’ specification***, “Before the changes are finally communicated to the applications, an applications method named FILTER_CHANGED_DATA is called. Here the applications can define special logics to filter out some additional objects and prevent them to be reported”, ***page 11, paragraph 0065, lines 5-8 of Appellants’ specification***. In addition, in view of Appellants’ specification the limitation of a changed data object not to be communicated to the application is interpreted as the

changed data object not relevant for the application which is equivalent to the application did not register for the data object.

Brodsky teaches “The notification manager... accesses certain status information contained therein, determines which observed objects have been modified”, **col. 4, lines 51-53**, which represents filtering out data objects from the changed data objects, “and then notifies the associated observer objects”, **col. 4, lines 54-55**, which represents filtering out data objects from the changed data objects not to be communicated to an application since the notification manager only sends notifications to registered observer objects listed with the observed object, the notification manager filters out observed objects that do not have associated observer objects since “an observed object 112 is added, deleted, or updated from the object hierarchy”, col. 4, lines 39-40, “the notification manager 110 maintains a list of both observed objects 112 and observer objects 116”, **col. 4, lines 44-46**, the notification manager would need to remove a deleted observed object from its list so that changes would not be communicated to the application after being deleted, “the observer objects register with the notification manager, so that they are notified when changes or modifications are made to the observed objects”, **col. 4, lines 28-30**, and each observed object may have zero to many observer objects “where each observed object may have multiple observer objects”, **col. 4, lines 45-46**. “...then notifies the associated observer objects”, **col. 4, lines 54-55**, “The observer objects monitoring the observed object are notified in

an unspecified order with information concerning the change”, **col. 4, lines 55-57**, which represents prior to transmitting the relevant changed data to the application.

As to argument (12), Brodsky discloses filtering out data from the changed data not to be communicated to the application, as stated above in the response to arguments (9), (10), and (11), as stated above in the 35 U.S.C. 103(a) rejections for claims 7 and 21, and as stated in the Final Office action mailed on 7/7/2010 on page 9 item 23 and page 12, item 30.

Support for this limitation was interpreted by the original claim “filtering out data objects whose changes are not to be communicated to an application” and in view of Appellants’ specification, specifically page 8, paragraph 0044, lines 1-6 and page 11, paragraph 0065, lines 5-8, based on Appellants’ appeal page 4, lines 8-10. In view of Appellants’ specification, the terms data and changed data have the same meaning as the terms data object and changed data object since the limitation of “filtering out data from the changed data not to be communicated to the application” is described as occurring at the data object level, “In case that not all the changes of an object are relevant for each of the registered applications, the agent may maintain a list of fields of the respective data object whose changes are relevant for the respective application. Then, based on this list, an operation is performed to filter out data objects whose changes are not to be communicated to an application, prior to the operation of transmitting the relevant changed data to the application”, **page 8, paragraph 0044**,

lines 1-6 of Appellants' specification, "Before the changes are finally communicated to the applications, an applications method named FILTER_CHANGED_DATA is called. Here the applications can define special logics to filter out some additional objects and prevent them to be reported", ***page 11, paragraph 0065, lines 5-8 of Appellants' specification***. In addition, in view of Appellants' specification the limitation of a changed data object not to be communicated to the application is interpreted as the changed data object not relevant for the application which is equivalent to the application did not register for the data object.

Brodsky teaches "The notification manager... accesses certain status information contained therein, determines which observed objects have been modified", ***col. 4, lines 51-53***, which represents filtering out data objects from the changed data objects, "and then notifies the associated observer objects", ***col. 4, lines 54-55***, which represents filtering out data objects from the changed data objects not to be communicated to an application since the notification manager only sends notifications to registered observer objects listed with the observed object, the notification manager filters out observed objects that do not have associated observer objects since "an observed object 112 is added, deleted, or updated from the object hierarchy", col. 4, lines 39-40, "the notification manager 110 maintains a list of both observed objects 112 and observer objects 116", ***col. 4, lines 44-46***, the notification manager would need to remove a deleted observed object from its list so that changes would not be communicated to the application after being deleted, "the observer objects register with

the notification manager, so that they are notified when changes or modifications are made to the observed objects”, **col. 4, lines 28-30**, and each observed object may have zero to many observer objects “where each observed object may have multiple observer objects”, **col. 4, lines 45-46**. “...then notifies the associated observer objects”, **col. 4, lines 54-55**, “The observer objects monitoring the observed object are notified in an unspecified order with information concerning the change”, **col. 4, lines 55-57**, which represents prior to transmitting the relevant changed data to the application.

In response to appellants’ argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick

and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (13), Brodsky discloses present a second input interface to allow for registering the entry representative of the application as stated above in the 35 U.S.C. 103(a) rejections for claim 15 and as stated in the Final Office action mailed on 7/7/2010 on page 12, item 28.

Brodsky teaches “observer object”, “A typical observer object is a user interface object”, **col. 3, lines 60-61**, which represents present a second input interface since “a user interface object, such as a view or window displayed on a monitor attached to the computer”, **col. 3, lines 61-63**, “the observer objects 116 register with the notification manager”, **col. 4, lines 28-29**, which represents to allow for registering the entries representative of applications since “observer objects” represent applications and “they are notified when changes or modifications are made to the observed objects 112 in the object hierarchy 114”, **col. 4, lines 29-31**.

In response to appellants’ argument that the references fail to show certain features of appellants’ invention, it is noted that the features upon which appellants relies (i.e., the agent generating a second input interface) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to argument (14), Brodsky discloses present a second input interface to allow for registering the entry representative of the application, as stated above in the response to argument (13), as stated above in the 35 U.S.C. 103(a) rejections for claim 15, and as stated in the Final Office action mailed on 7/7/2010 on page 12, item 28.

Brodsky teaches “observer object”, “A typical observer object is a user interface object”, **col. 3, lines 60-61**, which represents present a second input interface since “a user interface object, such as a view or window displayed on a monitor attached to the computer”, **col. 3, lines 61-63**, “the observer objects 116 register with the notification manager”, **col. 4, lines 28-29**, which represents to allow for registering the entries representative of applications since “observer objects” represent applications and “they are notified when changes or modifications are made to the observed objects 112 in the object hierarchy 114”, **col. 4, lines 29-31**.

In response to appellants’ argument that the references fail to show certain features of appellants’ invention, it is noted that the features upon which appellants relies (i.e., the agent generating a second input interface) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As to argument (15), Brodsky discloses present a second input interface to allow for registering the entry representative of the application, as stated above in the response to arguments (13) and (14), as stated above in the 35 U.S.C. 103(a) rejections for claim 15, and as stated in the Final Office action mailed on 7/7/2010 on page 12, item 28.

Brodsky teaches “observer object”, “A typical observer object is a user interface object”, **col. 3, lines 60-61**, which represents present a second input interface since “a user interface object, such as a view or window displayed on a monitor attached to the computer”, **col. 3, lines 61-63**, “the observer objects 116 register with the notification manager”, **col. 4, lines 28-29**, which represents to allow for registering the entries representative of applications since “observer objects” represent applications and “they are notified when changes or modifications are made to the observed objects 112 in the object hierarchy 114”, **col. 4, lines 29-31**.

In response to appellants’ argument that the references fail to show certain features of appellants’ invention, it is noted that the features upon which appellants relies (i.e., the agent generating a second input interface) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from

the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (16), Brodsky as modified by Chow discloses requesting changed data from the data object, "requesting, by an agent executing in a computer system, changed data from the data object", and "to call a second method by the agent

to obtain changed data from the data object", as stated above in the response to arguments (1), (2), (3), (4), (5), (6), (7), and (8), as stated above in the 35 U.S.C. 103(a) rejections for claims 1 and 14, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 11, item 27.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches "step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object", **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and "Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp", **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the "Revision Manager" contains the changed data. In view of Appellants' specification, the terms data and data object have the same meaning since an "object" is described "In the following, the term "object" is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment", **pages 5-6**,

paragraph 0029, lines 2-5, Appellants' specification. In addition, the limitation of "requesting changed data from the data object" inherently encompasses requesting the changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", ***page 6,***

paragraph 0031, lines 1-8 of Appellants' specification.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (***col. 6, lines 57-62 of Chow.***)

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

As to argument (17), Brodsky as modified by Chow discloses requesting changed data from the data object, "requesting, by an agent executing in a computer system, changed data from the data object", and "to call a second method by the agent to obtain changed data from the data object", as stated above in the response to arguments (1), (2), (3), (4), (5), (6), (7), (8), and (16), as stated above in the 35 U.S.C.

103(a) rejections for claims 1 and 14, and as stated in the Final Office action mailed on 7/7/2010 on page 5 item 15 through page 11, item 27.

Brodsky does not explicitly disclose requesting changed data from the data object.

However Chow teaches “step 459, Figure 38, in this case the Revision Manager directs a request over the network to the primary or unique source for the object”, **col. 29, lines 50-57**, which represents the requesting, by an agent executed by a computer system, and “Once the object has been obtained in step 458 or step 459, execution continues to step 460. ...If the object is in the cache, then in step 463 the change in the object is determined by comparing the new version of the object to the existing version in the cache, and the change is logged in the log of changes to the object (386 in FIG. 34) along with a time stamp”, **col. 30, lines 35-57**, which represents changed data from the data object is requested since the object obtained by the “Revision Manager” contains the changed data. In view of Appellants’ specification, the terms data and data object have the same meaning since an “object” is described “In the following, the term “object” is used to refer to a particular master data object (i.e., a physical Location, Location-Product, or Transportation Lane in the context of an application, for example a logistics application or a supply chain management environment”, **pages 5-6, paragraph 0029, lines 2-5, Appellants’ specification**. In addition, the limitation of “requesting changed data from the data object” inherently encompasses requesting the

changed and unchanged data of the data object (i.e. the entire data object) since Appellants' specification describes the changes to the data object occurring at the data object level, "FIG. 1 illustrates a CNA 100 which is configured to communicate, on the one hand, with a number of data objects 10, 20, 30, and on the other hand, with a number of applications 210, 220 which each works with one or more of these objects. The objects may represent locations, location-product, and transportation lane in context of a business application. The objects are subject to changes. Furthermore, new objects may be added or objects may be deleted. As soon as there is a change in the objects, there may be changes necessary in applications as well", **page 6, paragraph 0031, lines 1-8 of Appellants' specification.**

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

In response to appellants' argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the

claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the notification manager of Brodsky with the teachings of Revision Manager from Chow because this feature would have provided a mechanism which collects at a site convenient to a group of users a single cache of the most recent versions of documents so that all members of the group can have quick and inexpensive access, while the group as a whole can significantly reduce communication costs (**col. 6, lines 57-62 of Chow**).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

KimbleAnn C. Verdi

January 24, 2011

Conferees:

/Hyung S. SOUGH/
Supervisory Patent Examiner, Art Unit 2194
01/30/11

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193